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PCT (Patents)

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(54) FIELD ELECTRON EMISSION MATERIALS AND DEVICES

(71) PRINTABLE FIELD EMITTERS LIMITED [GB/GB]; Atlas Centre, Rutherford Appleton Laboratory, Chilton, DIDCOT, Oxfordshire OX11 0QX (GB).

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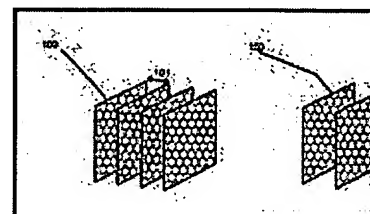
(84) ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, ML, MR, NE, SN, TD, TG)

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(57) Graphite comprises atoms arranged in discrete layers (100). The perpendicular distance between these layers is the 'd-spacing' (101). A field emission material is obtained by expanding the d-spacing (102). Such expansion may be achieved by an intercalant that has been introduced between layers of the material. Such an intercalant may reside, or may no longer reside, in the material. The material may be placed in position on a substrate by a printing process, prior to expansion. Such field emission material may be used as cathodes in field electron emission devices.



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